First Phase Report

1.0 Introduction

Battelle and its sub-contractors[1] are conducting the Hazardous Materials Serious Crash Analysis project for the Federal Motor Carrier Safety Administration (FMCSA). This project has three basic purposes:

- Enhance the current methodology for identifying and characterizing serious hazardous material (HM) truck crashes in the United States
- Improve capability to analyze causes and effects of selected serious hazardous materials crashes
- Support the implementation of hazardous materials truck transportation risk reduction strategies for packages, vehicles, and drivers.

The project is being conducted in two phases. Phase I is a pilot test to evaluate the feasibility of enhancing the current approach for serious HM truck crash identification, data collection and analysis. In Phase II, more comprehensive data collection and analysis will be performed based on the results of Phase I, leading to a more formal assessment of HM truck crash cause and effect.

This report presents the results of Phase I. This involved an assessment of current HM crash data being collected by the U.S. Department of Transportation (DOT). This included the involvement of key stakeholders in both the private and public sectors. The effort then shifted to developing techniques for performing post-data collection and utilizing these techniques to populate a database with a sample of serious HM crashes. Sample analyses were subsequently conducted to illustrate how the enhanced database could be used for more rigorous HM truck safety policy studies.

[1] The Battelle team consisted of Battelle Memorial Institute (Battelle), University of Michigan Transportation Research Institute (UMTRI) and Visual Risk Technologies, Inc. (VRT).